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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/479,432	01/07/2000	Charles R. Musick	IL-10443	3027

7590 01/18/2006

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EXAMINER

LY, ANH

ART UNIT PAPER NUMBER

2162

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/479,432	<b>Applicant(s)</b> MUSICK ET AL.	
	<b>Examiner</b> Anh Ly	<b>Art Unit</b> 2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 18, 20, 21, 24-31, 41, 43, 44, 48, & 52-53 is/are pending in the application.
- 4a) Of the above claim(s) 9-17, 19, 22, 23, 32-40, 42, 45-47 and 49-51 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This Office Action is response to Applicants' RCE filed on 04/04/2003.
2. Claims 1-8, 18, 20-21, 24-31, 41, 43-44, 48 and 52-53 are pending in this application.

***Terminal Disclaimer***

3. The terminal disclaimer filed on 04/04/2003 has been reviewed and is NOT accepted. Because the application/patent being disclaimed has not been identified.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-6, 8, 18, 20-21, 24-29, 31, 41, 43-44, 48 and 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 6,523,172 B1 issued to Martinez-Guerra et al. (hereinafter Martinez) in view of US Patent No.: 6,377,993 issued to Brandt et al. (hereinafter Brandt and further in view of US Patent No.: 6,223,186 issued to Rigault et al. (hereinafter Rigault).

With respect to claim 1, Martinez teaches a method for maintaining a data warehouse (automated transformation for creating and maintaining data warehouse or datamart: fig. 13, col. 1, lines 25-30), comprising

identifying a data source of interest (personal database or payroll database to be transformed: col. col. 1, lines 60-67 and col. 3, lines 30-45);

updating a metadata to reflect information available from said source (updating or share metadata: col. 2, lines 55-65);

automatically generating a mediator based on said metadata (based on the metadata, the system automatically generate mediator via a function of a generation code program: col. 2, lines 35-45, col. 3, lines 30-45 and see fig. 2, col. 21, lines 15-35).

Martinez teaches maintaining data warehouse, identifying a data source or database to be transformation, updating the metadata and having a generation code program is fully functional and automatically generation data representation as a mediator. Martinez does not clearly teach writing a wrapper for said data source for calling mediator.

However, Brandt teaches wrapper function for controlling object in the program and examining to reveal the service and request from the user based on the application (col. 9, lines 22-40).

Therefore, based on Martinez in view of Brandt, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined the teachings of Martinez and Brandt, because using the steps of "writing wrapper for said data source which calls said mediator" would have given those skilled in the art to have ability to include a wrapper function for calling and controlling the object in the application program. This gives users the advantage of receiving the data from various source of the data mart or data warehouse for analysis request from the user (Brandt's Col. 4, lines 10-20) more efficiently. Martinez and Brandt do not teach wherein said method is applied to data warehousing applications in the domain of functional genomics and proteomics.

However, Rigault discloses a database, data source, containing sequence data that can be used with other bimolecular information and these data may represent genomics and proteomics (col. 17, lines 26-30).

Therefore, based on Martinez in view of Brandt, and further in view of Rigault, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Rigault to the system of Martinez to maintain data warehouse and automatically transformation the data source from source representation into a target representation. Because using the steps of "applied to the data warehousing applications in the domain of functional genomics and proteomics"

would have given those skilled in the art the tools to store the data from the domain of biomolecular or medical into a modular format which allows for rapid retrieval of the information. The motivation being to provide the capability for significant analysis of the data stored in the data warehouse (Rigault's col. 1, lines 10-15 and col. 60-65).

With respect to claim 2, Martinez wherein the step of updating a metadata comprises entering new types of information, new data formats for previously defined information, new transformations between data formats, and the schema of said source (updating and sharing the metadata; col. 2, lines 60-65).

With respect to claim 3, Martinez discloses wherein said mediator is fully functional and is automatically generated by a stand-alone mediator generation program (the system automatically generate mediator via a function of a generation code program: col. 2, lines 35-45, col. 3, lines 30-45 and see fig. 2, col. 21, lines 15-35).

With respect to claim 4, Martinez discloses wherein said mediator generation program automatically defines an API and translation libraries (the system automatically generate mediator via a function of a generation code program: col. 2, lines 35-45, col. 3, lines 30-45 and see fig. 2, col. 21, lines 15-35).

With respect to claim 5, Martinez discloses wherein said mediator comprises code to translate between source and target representations, possibly using externally defined methods, and load data into said warehouse (transforming or translating from first data representation into a target data representation: col. 5, lines 25-50 and lines 58-67).

With respect to claims 6 and 8, Martinez teaches a method as discussed in claim 1.

Martinez teaches maintaining data warehouse, identifying a data source or database to be transformation, updating the metadata and having a generation code program is fully functional and automatically generation data representation as a mediator. Martinez does not clearly teach wherein a wrapper.

However, Brandt teaches wrapper function for controlling object in the program and examining to reveal the service and request from the user based on the application (col. 9, lines 22-40).

Therefore, based on Martinez in view of Brandt, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined the teachings of Martinez and Brandt, because using the steps of "writing wrapper for said data source which calls said mediator" would have given those skilled in the art to have ability to include a wrapper function for calling and controlling the object in the application program. This gives users the advantage of receiving the data from various source of the data mart or data warehouse for analysis request from the user (Brandt's Col. 4, lines 10-20) more efficiently.

With respect to claim 18, Martinez teaches a method for maintaining a data warehouse (automated transformation for creating and maintaining data warehouse or datamart: fig. 13, col. 1, lines 25-30), comprising

identifying a data source of interest (personal database or payroll database to be transformed: col. col. 1, lines 60-67 and col. 3, lines 30-45);

updating a metadata to reflect information available from said source (updating or share metadata: col. 2, lines 55-65);

automatically generating a mediator based on said metadata (based on the metadata, the system automatically generate mediator via a function of a generation code program: col. 2, lines 35-45, col. 3, lines 30-45 and see fig. 2, col. 21, lines 15-35).

Martinez teaches maintaining data warehouse, identifying a data source or database to be transformation, updating the metadata and having a generation code program is fully functional and automatically generation data representation as a mediator. Martinez does not clearly teach writing a wrapper for said data source for calling mediator.

However, Brandt teaches wrapper function for controlling object in the program and examining to reveal the service and request from the user based on the application (col. 9, lines 22-40).

Therefore, based on Martinez in view of Brandt, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined the teachings of Martinez and Brandt, because using the steps of "writing wrapper for said data source which calls said mediator" would have given those skilled in the art to have ability to include a wrapper function for calling and controlling the object in the application program. This gives users the advantage of receiving the data from various source of the data mart or data warehouse for analysis request from the user (Brandt's Col. 4, lines 10-20) more efficiently. Martinez and Brandt do not teach wherein said



method is applied to data warehousing applications in the domain of protein sequence and structure analysis.

However, Rigault discloses a database, data source, containing sequence data that can be used with other bimolecular information and these data may represent genomics and proteomics (col. 17, lines 26-30).

Therefore, based on Martinez in view of Brandt, and further in view of Rigault, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Rigault to the system of Martinez to maintain data warehouse and automatically transformation the data source from source representation into a target representation. Because using the steps of "applied to the data warehousing applications in the domain of functional genomics and proteomics" would have given those skilled in the art the tools to store the data from the domain of biomolecular or medical into a modular format which allows for rapid retrieval of the information. The motivation being to provide the capability for significant analysis of the data stored in the data warehouse (Rigault's col. 1, lines 10-15 and col. 60-65).

With respect to claim 20, Martinez discloses wherein said method is used for integrating a new data source into a data warehouse (col. 1, lines 60-67 and col. 2, lines 1-28).

With respect to claim 21, Martinez discloses updating a warehouse when a previously integrated data source is modified (col. 2, lines 8-28).

Claim 24 is essentially the same as claim 1 except that it is directed to a computer-useable medium rather than a method , and is rejected for the same reason as applied to the claim 1 hereinabove.

Claim 25 is essentially the same as claim 2 except that it is directed to a computer-useable medium rather than a method, and is rejected for the same reason as applied to the claim 2 hereinabove.

Claim 26 is essentially the same as claim 3 except that it is directed to a computer-useable medium rather than a method, and is rejected for the same reason as applied to the claim 3 hereinabove.

Claim 27 is essentially the same as claim 4 except that it is directed to a computer-useable medium rather than a method, and is rejected for the same reason as applied to the claim 4 hereinabove.

Claim 28 is essentially the same as claim 5 except that it is directed to a computer-useable medium rather than a method, and is rejected for the same reason as applied to the claim 5 hereinabove.

Claim 29 is essentially the same as claim 6 except that it is directed to a computer-useable medium rather than a method, and is rejected for the same reason as applied to the claim 6 hereinabove.

Claim 31 is essentially the same as claim 8 except that it is directed to a computer-useable medium rather than a method, and is rejected for the same reason as applied to the claim 8 hereinabove.

Claim 41 is essentially the same as claim 18 except that it is directed to a computer-useable medium rather than a method , and is rejected for the same reason as applied to the claim 18 hereinabove.

Claim 43 is essentially the same as claim 20 except that it is directed to a computer-useable medium rather than a method, and is rejected for the same reason as applied to the claim 20 hereinabove.

Claim 44 is essentially the same as claim 21 except that it is directed to a computer-useable medium rather than a method, and is rejected for the same reason as applied to the claim 21 hereinabove.

With respect to claim 48, Martinez teaches a method for maintaining a data warehouse (automated transformation for creating and maintaining data warehouse or datamart: fig. 13, col. 1, lines 25-30), comprising

identifying a data source of interest (personal database or payroll database to be transformed: col. col. 1, lines 60-67 and col. 3, lines 30-45);

updating a metadata to reflect information available from said source (updating or share metadata: col. 2, lines 55-65);

automatically generating a mediator based on said metadata (based on the metadata, the system automatically generate mediator via a function of a generation code program: col. 2, lines 35-45, col. 3, lines 30-45 and see fig. 2, col. 21, lines 15-35).

Martinez teaches maintaining data warehouse, identifying a data source or database to be transformation, updating the metadata and having a generation code program is fully functional and automatically generation data representation as a

mediator. Martinez does not clearly teach writing a wrapper for said data source for calling mediator.

However, Brandt teaches wrapper function for controlling object in the program and examining to reveal the service and request from the user based on the application (col. 9, lines 22-40).

Therefore, based on Martinez in view of Brandt, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined the teachings of Martinez and Brandt, because using the steps of "writing wrapper for said data source which calls said mediator" would have given those skilled in the art to have ability to include a wrapper function for calling and controlling the object in the application program. This gives users the advantage of receiving the data from various source of the data mart or data warehouse for analysis request from the user (Brandt's Col. 4, lines 10-20) more efficiently. Martinez and Brandt do not teach wherein said method is applied to data warehousing applications in the domain of astrophysics and climate modeling.

However, Rigault discloses a database, data source, containing sequence data that can be used with other bimolecular information and these data may represent genomics and proteomics (col. 17, lines 26-30).

Therefore, based on Martinez in view of Brandt, and further in view of Rigault, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Rigault to the system of Martinez to maintain data warehouse and automatically transformation the data source from source

representation into a target representation. Because using the steps of “applied to the data warehousing applications in the domain of functional genomics and proteomics” would have given those skilled in the art the tools to store the data from the domain of biomolecular or medical into a modular format which allows for rapid retrieval of the information. The motivation being to provide the capability for significant analysis of the data stored in the data warehouse (Rigault’s col. 1, lines 10-15 and col. 60-65).

With respect to claim 52, Martinez discloses wherein said method is used for integrating a new data source into a data warehouse (col. 1, lines 60-67 and col. 2, lines 1-28).

With respect to claim 53, Martinez discloses updating a warehouse when a previously integrated data source is modified (col. 2, lines 8-28).

7. Claims 7, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.: 6,523,172 B1 issued to Martinez-Guerra et al. (hereinafter Martinez) in view of US Patent No.: 6,377,993 issued to Brandt et al. (hereinafter Brandt and further in view of US Patent No.: 6,223,186 issued to Rigault et al. (hereinafter Rigault) and US Patent No. 5,937,409 issued to Wetherbee.

With respect to claim 7, Martinez in view of Brandt and Rigault discloses a method as discussed in claim 1.

Martinez and Brandt and Rigault disclose substantially the invention as claimed.

Martinez and Brandt and Rigault do not teach wherein said mediator generation program defines a public data representation, wherein said wrapper uses said public data representation.

However, Wetherbee discloses public attribute data type and public attribute data type (col.7, lines 38-49).

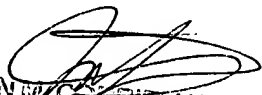
Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Martinez in view of Brandt and Rigault with the teachings of Wetherbee by incorporating the use of public and private data representation. The motivation being to provide the capability for significant analysis of the data stored in the data warehouse.


Claim 30 is essentially the same as claim 7 except that it is directed to a computer-useable medium rather than a method, and is rejected for the same reason as applied to the claim 7 hereinabove.

**Contact Information**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Ly whose telephone number is (571) 272-4039 or via E-Mail: ANH.LY@USPTO.GOV or fax to **(571) 273-4039 (Examiner fax number)**. The examiner can normally be reached on TUESDAY – THURSDAY from 8:30 AM – 3:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene, can be reached on (571) 272-4107 or **Primary Examiner Jean Corrielus (571) 272-4032**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Any response to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, or faxed to: **Central Fax Center: (571) 273-8300**

  
JEAN M. CORRIELUS  
PRIMARY EXAMINER

ANH LY   
JAN. 4<sup>th</sup>, 2006